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A Statistical View of the Recent Progress and Present Amount of Mining Industry in France; drawn from the Official Reports of the "Direction Génerale des Ponts et Chaussées et des Mines," in continuation of a Paper read before the Statistical Section of the British Association for the Advancement of Science, at its Meeting in Newcastle in 1838. By G. R. PORTER, Esq., F.R.S., Corresponding Member of the Institute of France.

[*Read before the Statistical Section of the British Association at York, September* 26*th*, 1844.]

AT the present time, when the most strenuous exertions are being made for the advancement of the material interests of this country in all their leading branches, and while those exertions are being attended by the measure of success which usually accompanies industry directed by intelligence, it must be interesting to know whether other nations are engaged in the same pursuits, and in what degree success may have crowned their efforts also.

Our mining industry, if not the greatest, is, without doubt, one of the greatest sources of our wealth. It has been one of the chief means whereby we have been enabled to take and to maintain the station which we occupy among the nations of Europe. The knowledge of this fact has naturally led to this consequence, that other countries have striven to rival us so far as the means for such rivalry have been within their reach, and that their Governments have shown a desire to foster and encourage pursuits from which they have expected to draw results commensurate with those which have thus excited their emulation.

In no country have greater efforts to this end been made than in France. Whether the means whereby success has been sought have been the most judicious that could have been adopted on the part of the Legislature of that country is, however, very questionable.

The latest of the official documents that has been hitherto compiled having reference to the mining operations of France, relates to the year 1841, being five years in advance of the returns brought forward at the meeting of this section of the British Association in Newcastle. It will be interesting to compare the results obtained at the end of that interval of time, as an element of importance towards forming a judgment concerning the future progress of the mining industry of France. With this view, the facts will be presented as nearly as possible in the form given to the inquiry in 1838.

The system of Government inspection of the mines in France was begun in 1832, during which year, as well as in 1836 and 1841, the value of the principal mineral productions raised in that country was as follows :—

	1832	1836	1841
	Francs.	Francs.	Francs.
Coal, lignite and anthracite	16,079,670	26,607,071	33,159,044
Iron and Steel	87,312,994	124,384,616	141,789,560
Silver and Lead	856,673	821,534	774,033
Antimony	71,233	305,032	155,251
Copper	247,680	196,924	278,676
Manganese	105,150	152,671	147,483
Alum and Sulphate of Iron	1,077,595	1,760,607	2,052,043
Total	105,750,995	154,228,455	178,356,090
Or in sterling money	£4,230,040	£6,169,138	£7,134,243

The actual increase of value realized from the production of these mineral substances will be seen to have been—

	Francs.		Francs.	
During 4 years, 1832 to 1836	48,477,460,	or	12,119,365	per annum.
During 5 years, 1837 to 1841	24,127,635,	or	4,825,527	per annum.
During 9 years, 1832 to 1841	72,605,095,	or	8,067,233	per annum.

The per centage increase in 1836 over 1832 was 45·84, or 11·46 per annum.
The per centage increase in 1811 over 1836 was 15·64, or 3·12 per annum.
And for the whole 9 years, 1841 over 1832 was 68·65, or 7·63 per annum.

Coal.

The number of coal fields (bassins houillers) which were open in 1836 was 46. This number was in 1841 increased to 62 ; of which number 9 furnished anthracite only, and 14 furnished lignite only ; the other 39 furnished bituminous coal, 5 among them yielding anthracite also. These coal-fields are situated in 41 of the 86 departments into which France is divided. They are here arranged in the order of their productiveness as given in the accounts for 1841 :—

	Tons.		Tons.
Loire	1,193,110	Puy de Dôme	10,400
Nord	893,325	Ardêche	10,043
Saône et Loire	316,426	Vaucluse	8,302
Gard	274,234	Manche	6,977
Aveyron	111,379	Vendée	4,294
Bouches du Rhône	64,777	Aude	3,259
Allier	63,532	Alpes (Hautes)	3,167
Haute Loire	51,564	Sevrès (Deux)	2,699
Calvados	51,345	Oise	2,500
Nièvre	42,880	Creuse	2,145
Mayenne	42,345	Var	1,765
Isêre	37,207	Vosges	1,684
Tarn	37,107	Corrêze	1,623
Herault	32,633	Alpes (Basses)	1,085
Sarthe	31,198	Aisne	738
Marne et Loire	20,807	Rhin (Haut)	535
Loire Inférieure	19,347	Cantal	475
Pas de Calais	19,182	Côte d'Or	258
Haute Saône	17,325	Dordogne	133
Rhône	14,831	Ain	96
Rhin (Bas)	13,465		

Two departments—Moselle and Lot—which each produced a small quantity of coal in 1836, had ceased to do so in 1841. The quantity raised in the former year was 3016 tons in Moselle, and 60 tons in Lot. On the other hand, the following departments, 13 in number, from which coal was not obtained in 1836, have since been made to yield that mineral—some of them in comparatively considerable quantity.

	Tons.		Tons.
Bouches du Rhône . .	64,777	Var	1,765
Isère	37,207	Basses Alpes	1,085
Sarthe	31,198	Aisne.	738
Vaucluse	8,302	Côte d'Or	258
Manche	6,977	Ain	96
Hautes Alpes	3,167		
Deux Sevrès	2,699	Together . .	160,769
Oise	2,500		

This quantity may not appear very considerable to those who are accustomed to the magnitude of mining operations in this country; but the importance of the beginning thus made will not be undervalued, if we consider that of the 30 coal producing departments, in 1836, the aggregate quantity yielded by 22, or 11-15ths of the whole number, was less in that year than the quantity thus newly produced in the above 13 departments in 1841, and that the 20 of those 22 departments in which coal mines were worked in that year then produced very nearly double the quantity they had yielded in 1836.

The total quantity of coal, anthracite and lignite, raised in 1841 amounted to 3,410,200 tons. In 1814, the produce of all the coal mines in France was only 665,610 tons. This quantity was about doubled in 1826, the produce in that year having been 1,301,045 tons. In the following ten years this increased quantity was nearly doubled, the quantity raised in 1836 having been 2,544,835 tons. The increase during the last five years to which the statements reach has therefore been 34 per cent.; but if computed upon the produce of 1814, the difference between 1836 and 1841 amounts to 130 per cent. The increase during the whole period of 27 years has been 412 per cent. The quantities raised in each of the years above named, and the increase obtained between each period, have been as follows:—

	Quantity Raised.	Increase since 1814.	Increase since 1826.	Increase since 1836.
	Tons.	Tons.	Tons.	Tons.
1814	665,610	..	..	..
1826	1,301,045	635,435	..	..
1836	2,544,835	1,879,225	1,243,790	..
1841	3,410,200	2,744,590	2,109,155	865,365

The number of coal mines in work during 1841 was 256, showing an average production of 13,321 tons per mine. The average production in 1836 was only 9863 tons.

The number of workmen employed in raising various kinds of coal in France in 1841 was 29,320, of whom 22,595 worked in the mines. The average quantity raised to each person employed was 116 tons, being the same quantity as in 1836, when the number of persons employed was 21,913.

The value assigned in the official documents to the produce makes the cost of each ton amount in 1836 to 11*s*. 3½*d*., and in 1841 to only 7*s*. 9¼*d*.; the average value raised by each workman, which in 1836 amounted to 65*l*. 9*s*. 10*d*., had therefore fallen in 1841 to 45*l*. 1*s*. 5*d*., or nearly one-third. There are no means afforded for ascertaining in what proportion this saving has resulted from economy in the working, or from diminished wages or profits. In whatever manner the saving may have arisen, it is, however, an important fact, that the cost of production has in so short a space of time as five years been reduced to so great an extent as 30 per cent., without preventing the continued extension of this branch of employment.

We have no means whereby to ascertain correctly the quantity of coal raised in this country, but there are good grounds for believing that it is at least ten times the quantity that was raised in France in 1841. From Parliamentary documents we know that the quantities shipped coastways from one port to another in Great Britain and Ireland, in 1841, was 7,649,899 tons; the quantity exported to British colonies and foreign countries in the same year was 1,848,294 tons; together, 9,498,193 tons. But we know that for all great manufacturing purposes—smelting, casting, and forging iron and other metals, for glass-making, in the potteries, in our cotton, woollen, flax, and silk factories—coal is used which is produced on the spot, and is therefore not included in any account of shipments. It has been estimated that in our iron-works alone the consumption amounts to 6,877,000 tons yearly; and it will not be thought unreasonable to assume that a like quantity is used in all the other great branches of manufacture which are carried on among the various coal-fields. It was ascertained by a deputation from the body of coal owners of Durham and Northumberland, who were sent through the kingdom for the purpose of making the inquiry in the year 1816, that the quantity of coal distributed by canals and other modes of inland communication from the coal-fields of Yorkshire, Derbyshire, Nottinghamshire, Leicestershire, Warwickshire, and Staffordshire, to the east, west, and south of the kingdom, amounted to 10,808,046 tons; and there can be no doubt that at this time the quantity thus distributed must be much greater. These quantities amount to more than 34,000,000 of tons; and as the number of persons of all ages and both sexes employed in coal-mines in Great Britain in 1841 was found to be 118,233, it follows that the average quantity raised by each person is 253 tons, or about 120 per cent. more than the average quantity raised by each person from the coal-mines in France.

The use of coal in France is not limited to the supply obtained from the mines of that country. Considerable and constantly increasing quantities are yearly imported from Belgium, from the Rhenish provinces of Prussia and Bavaria, and from England. The quantity so imported in 1814 was 165,345 tons; in 1826 it had reached 505,180 tons; in 1836 it had further advanced to 999,452 tons; and in 1841 the quantity imported was 1,619,160 tons. Of this last mentioned quantity the importations were:—

	Tons.
From Belgium	992,226
From the Rhenish provinces of Prussia and Bavaria	196,502
From England, Wales, and Scotland	429,950
From other places	482
	1,619,160

On the other hand, some small quantities of coal are exported from France; but those shipments have never reached 50,000 tons in one year. The quantities of this description of fuel, so important for all manufacturing processes, and so indispensable for some, that remained for use in the kingdom in the years already cited were, in round numbers, as follows :—

	Tons.
In 1814	800,000
In 1826	1,800,000
In 1836	3,517,000
In 1841	4,980,000

The import duties on coal were diminished in 1834 from one uniform rate of 15 francs per ton to 3 francs, 6 francs, and 10 francs per ton, depending upon the district into which it is brought by sea; while the duty on importations by land was reduced from 3 francs to 1 franc and 1 franc 50 cents, such reduction being from 33 to 80 per cent. upon the former rates. The quantities imported have, since this reduction, increased to the extent of 130 per cent.; but, concurrently with this increase, the internal production has been augmented to the extent of 65 per cent.

Iron.

The increase which has taken place in this branch of mining industry since 1836 is not nearly so great as the increase that has attended the production of mineral fuel; for which result we may in great part account by the fact, that the iron trade in France has not been subjected to any diminution of fiscal protection, but continues to be hedged round by high and, as regards many qualities of the metal, prohibitory duties.

There were in 1836 twelve districts in which the making of iron was prosecuted in France. Including both smelting works and works for making bar-iron, there were in those twelve districts 894 distinct establishments. In 1841 the number of distinct establishments was increased to 1023. There were smelting works in 59 different departments, and in 20 other departments the making of pig and bar-iron from ore elsewhere produced was carried on; so that there were only 7 departments throughout France in which one of those two branches of the iron manufacture was not prosecuted. These 7 departments were :—

1. Basses Alpes.
2. Hautes Alpes.
3. Creuse.
4. Gers.
5. Haute Loire.
6. Lozère.
7. Vendée.

In some departments the quantity of iron made was inconsiderable. In Cantal the value of the metal produced was only 1280 francs, or 51*l.* 4*s.*; and in each of 13 other departments the value in the year did not reach 5000*l.* One half in value of all the iron made in France in 1841 was produced in the following 9 departments, which are here placed in the order of their productiveness, viz. :—

1. Haute Marne.
2. Moselle.
3. Côte d'Or.
4. Loire.
5. Nièvre.
6. Ardennes.
7. Cher.
8. Haute Saône.
9. Meuse.

Including with those 9 departments the like number which follow, placed also in the order of their productiveness, viz.:—

1. Seine,
2. Doubs,
3. Gard,
4. Saône et Loire,
5. Ariège,
6. Vosges,
7. Nord,
8. Dordogne,
9. Indre,

it appears that 5-7ths in value of all the iron made in France is produced in 18 departments, and that the remaining 2-7ths are distributed among 61 departments. The greatest value was in 1841 produced in the department of Haute Marne, and amounted to 11,983,744 francs, or 479,349*l*., which sum was divided among 86 establishments placed in 41 different localities; some of which establishments are said to have been in operation so early as the beginning of the 17th century.

The value of iron and steel made in the various departments of France, which amounted, according to the returns of the Government inspectors, to 4,975,424*l*. in 1836, is stated by those officers to have amounted in 1841 to 5,671,582*l*., showing an increase in 5 years of barely 14 per cent. The value assigned to a given weight of the produce has during the same time been reduced at the rate of 8⅛ per cent.

The 12 districts in which iron is produced are thus distributed according to the official documents:—

	Departments.
1st. Group of the East . .	Haute Saône—Côte d'Or—Doubs—Jura—Vosges —Haut Rhin—Haute Marne—Meurthe.
2nd. Group of the North-west.	Eure—Orne—Mayenne — Morbihan — Sarthe— Loire Inférieure—Côtes du Nord—Eure et Loire—Ille et Vilaine—Manche—Loire et Cher —Marne et Loire—Finisterre.
3rd. Group of the Indre . .	Indre—Vienne—Indre et Loire—Haute Vienne— Deux Sevrès.
4th. Group of Périgord . .	Dordogne — Haute Vienne — Charente — Lot et Garonne—Tarn et Garonne—Corrèze—Lot— Puy de Dôme.
5th. Group of the South-east .	Isère—Vaucluse—Drôme.
6th. Group of the North-east .	Ardennes—Moselle — Meuse—Nord—Bas Rhin —Aisne.
7th. Group of Champagne .	Haute Marne—Côte d'Or—Meuse—Vosges— Yonne—Marne—Aube.
8th. Group of the Centre . .	Nièvre—Saône et Loire—Cher—Allier—Loiret.
9th. Group of the South-west .	Landes — Gironde — Basses Pyrénées — Lot et Garonne.
10th. Group of the Coal Fields of the North	Nord—Pas de Calais—Oise—Seine—Seine et Oise.
11th. Group of the Coal Fields of the South	Loire — Aveyron — Ardèche — Gard—Isère — Rhone.
12th. Group of the Pyrénees and Corsica	Ariège — Pyrénées Orientales — Aude — Haute Garonne — Tarn — Basses Pyrénées — Hautes Pyrénées—Corse.

The grouping in the foregoing arrangement is somewhat different from that adopted in the returns of 1836. The actual and relative importance of each group may be seen from the following figures:—

Group.	Number of Iron Works.	Quantity of Fuel used.				Quantity of Products.		
		Wood Charcoal.	Coke.	Coals.	Wood.	Cast Iron.	Bar Iron.	Steel.
		Tons.	Tons.	Tons.	Stères.	Tons.	Tons.	Tons.
1	159	107,651	59	621	28,742	53,207	27,523	554
2	59	57,063	120	10,559	3,276	28,686	13,011	..
3	28	25,840	1,825	263	..	10,671	5,306	195
4	123	41,411	..	4,487	652	18,053	10,131	81
5	36	6,574	..	7	..	1,819	343	1,592
6	117	88,847	9,706	23,021	141,573	57,697	38,315	348
7	167	126,319	..	47,949	..	88,767	50,043	..
8	119	86,650	18,232	45,250	500	47,344	35,975	957
9	25	19,792	..	240	1,916	10,231	3,637	..
10	24	10	31,014	44,883	..	14,817	20,084	93
11	22	458	114,968	169,895	..	45,850	49,360	936
12	144	33,803	..	2,101	..	..	10,019	2,130
	1,023	594,418	175,924	349,276	176,659	377,142	263,747	6,886

The following figures present the number of workmen employed in the different divisions of the iron manufacture, and the value created in each of those divisions in 1836 and in 1841 :—

	1836		1841	
	Number of Workmen.	Value Created.	Number of Workmen.	Value Created.
		£.		£.
1. Extraction and preparation of the Ore	17,557	500,632	15,783	556,211
2. Production of Pig Iron (*fonte*) .	6,776	1,969,132	4,835	1,925,673
3. Production of Malleable Iron (*gros-fer*)	8,678	1,506,247	11,148	1,749,810
4. Drawing, Rolling, &c.	8,615	812,486	13,165	1,208,946
5. Moulting, Casting, &c. Steel . .	2,149	186,927	2,899	230,942
Total	43,775	4,975,424	47,830	5,671,582

The value assigned to each form or product of the manufacture in the French official accounts, is, when converted into English weight and money:—

	Per Ton.		Per Ton.
Pig Iron	£6 11 1	Bolt and Rod Iron . .	£22 18 10
Castings—1st melting	10 14 9	Iron Plates. . . .	24 19 5
Castings—2d melting	16 6 5	Iron Wire	30 1 9
Bar Iron . . .	15 13 1	Cast Steel	55 3 6

These prices, so exorbitantly high when compared with the cost of production in England, must result in great part from the less efficient application of labour in France, and partly also from the higher cost of fuel in that country. Measuring the production of the two countries by the quantity of ore converted into pig iron, it appears that in Great Britain we make 4 tons for each ton made in France, while the number of persons employed for the purpose is positively greater in France than in England, viz. :—

In France . . .	47,830	In Great Britain .	42,418

Giving as the average quantity of metal resulting from the labour of each person employed rather less than 8 tons in France, and more than 35 tons in this country. But, to estimate to its full extent the greater efficiency of this branch of labour with us, we must bear in mind the greater number of persons employed in France for the production and transport of the fuel used at the iron-works, and which, as we have seen, is 120 per cent. greater than with us. If the cost of fuel at the iron-works of Great Britain were as great as at the iron-works of France, it would on a moderate computation add 50*s*. per ton to the cost of the iron produced in this country.

The value of the fuel consumed in the manufacture of iron in France in 1836 and 1841 was:—

	1836	1841
	£.	£.
Wood Charcoal . . .	1,643,826	1,706,712
Wood	13,040	41,027
Coke	96,972	177,237
Coal	285,235	254,387
Peat	694	301
Total . . .	2,039,767	2,179,664

Being 41 per cent. on the value of metal made in 1836, and 38½ per cent. in 1841.

The above amounts were divided among the different processes in the following proportions:—

	1836	1841
1. Roasting the Ore	0·087	0·104
2. Smelting	55·500	58·717
3. Refining—Puddling Furnaces, &c. . .	36·175	32·721
4. Casting, Drawing, Rolling, &c. . . .	5·959	6·073
5. Moulting, Casting, &c. Steel	2·279	2·385
	100·	100·

The average prices of the different kinds of fuel used in each of the above two years, were:—

	1836		1841	
	s.	*d.*	*s.*	*d.*
Wood Charcoal, per ton	54	10	57	5
Coal, per ton	18	5	14	7
Coke, per ton	20	3	20	2
Wood, per stère	2	10	4	7

The continually increasing cost of wood in France, should tend, in conjunction with the continually decreasing cost of coal, to alter the existing system of manufacture; but under any circumstances, the iron-masters in that country must be placed at a disadvantage in competing with countries where ironstone is found on the same spot with the fuel and the flux needful for its reduction. We have seen that the cost of coal at the places of production in France was in 1836, per ton, 11*s.* 3½*d.*, and in 1841, per ton, 7*s.* 9¼*d.*, and it therefore appears that the expense of carriage from the collieries to the iron-works amounted on the average to 7*s.* 1½*d.* per ton in 1836 and to 6*s.* 9¾*d.* in 1841, or more than the entire cost of the fuel used by English iron-masters.

The quantity of iron made in France in each year from 1837 to 1841 appears from the official documents to have been as follows:—

	Pig Iron.	Malleable Iron.
	Tons.	Tons.
1837	331,679	224,613
1838	347,776	224,195
1839	350,172	231,761
1840	347,773	237,379
1841	377,142	263,747

How inadequate must be the native production of this all important metal, as here shown, to supply the wants of an extensive and populous country like France! If the rules of common sense were allowed to regulate the conduct of nations in matters of this nature, we should assuredly see that every possible inducement were held out to make good the deficiency by importations from foreign countries. The French government has, on the contrary, chosen to throw the most serious obstacle in the way of such importations, and under the pretext of stimulating the production at home, has loaded iron of foreign make with all but prohibitory duties. Pig iron is subject to a rate equal to 3*l.* 2*s.* 6*d.* per ton. Plates, bars, and rods have to pay duties according to their dimensions, varying from 8*l.* 7*s.* 4*d.* to 16*l.* 14*s.* 9*d.* per ton; and such articles as are not actually prohibited, and to which a higher process of manufacture has been applied, for example wire, are charged with a duty equal to 26*l.* 15*s.* 8*d.* per ton. At these rates the importations of iron into France are, as might be expected, small in quantity, not in any one year reaching 50,000 tons. The payment of high duties upon even this small quantity is, however, a proof of the excessive prices which the consumers are forced to pay for all that they use—prices from 100 to 250 per cent. greater than are paid in England; and the slow progress made by the iron-masters of France in providing for the wants of the country should convince the government that the method they have adopted for stimulating production by means of high protective duties, is but ill adapted to that end. It would most probably be found upon inquiry, that the iron-masters in that country are in fact but little interested in the question. By the price which they obtain for their iron they are governed in the price which they can afford to pay for the wood fuel which they use; or it may be more correct to say, that the proprietors of woods in the iron districts exact from the iron-masters the highest price which the market value of their iron will enable them to give, and thus the protecting duty on iron is a benefit only to a proportion of the proprietors of woods, at the expense of the rest of the community.

The small quantity of iron imported from other countries into France is almost wholly in the first stage of manufacture. There are no means afforded in the official accounts of that country for ascertaining the proportionate quantities of various descriptions of the metal imported; but as the duty levied in 1841 and 1842 upon all kinds of iron averaged *3l.* 11*s.* 9*d.* per ton, it is evident that nearly the whole importations must have consisted of pig-iron. It is probable that the small importations of other kinds which are made are confined, or nearly so, to the produce of this country, from the greater cheapness of our market; and we know that the great bulk of our shipments to France are of pig-iron. In 1842, out of 23,428 tons of all kinds of iron shipped by us to that country, 16,464 tons were pig-iron; and in 1843 the proportion was still greater, having been 22,103 out of 29,626 tons,—in both cases more than 70 per cent. of the whole shipments.

A considerable relaxation of the French tariff, whereby the purchase of iron from other countries would be encouraged, would doubtless prove of benefit to those of us who are engaged in its production; while the benefit which France must derive in various ways from having so important a material in greater abundance, would, by advancing the general wealth of the country, make France a more desirable customer; but in the meantime, the course which the French government pursues on this and other points of commercial policy, is by no means an unmixed evil to us, through the obstacles which are thereby raised by itself against the manufacturers of that country in their competition with us in third markets.

The production of metals, other than iron, is so inconsiderable as to be a matter of no national importance in France, and it does not at all interest us except as it points out that country as qualified to be a good customer for a portion of our superabundance. The following figures will show that, small as was the production of those metals in 1836, it is now even less.

		1836		1841	
		Quantity.	Value.	Quantity.	Value.
			£.		£.
Lead	Tons.	713	16,209	638	12,559
Silver	Ozs.	81,152	16,650	73,680	18,340
Antimony . . .	Tons.	411	12,121	112	6,198
Copper	,,	102	7,877	100	11,147
Manganese . .	,,	1,667	6,106	1,978	5,899

These quantities are of course quite inadequate for the supply of the kingdom, and the importations for consumption (*commerce spécial*) into France in 1841 and 1842 were as follows:—

		1841	1842
Lead . . .	Tons.	17,375	18,671
Copper . . .	,,	9,770	10,814
Manganese . .	,,	1,341	1,295

The greater part of the lead was obtained from Spain, but England supplied of that metal 2,519 tons in 1841 and 5,027 tons in 1842. The copper was principally imported from England, viz., 6,830 tons in 1841 and 8,300 tons in 1842, a great part being the produce of foreign ore smelted in England.

The declared value of British metals and of coals exported to France in 1842 was as follows:—

Iron and Steel	£105,172
Hardwares and Cutlery . . .	90,035
Copper	682,833
Lead	91,687
Tin	79,223
	1,048,950
Coals	173,278
	1,222,228

The quantities of iron and steel exported in that year and in 1843 to France were:—

	1842				1843			
	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.
Bars	4,566	1	3	26	4,237	9	2	3
Bolt and Rod	174	17	..	..	295	2	2	..
Pigs	16,464	..	..	..	22,103	..	..	..
Cast	52	16	..	9	324	..	3	14
Wire	39	..	1	8	39	..	..	22
Anchors, &c.	289	8	..	4	444	17	..	23
Hoops	506	14	2	..	443	11	1	16
Nails	1	1	3	7	3	11	1	16
Other kinds	834	13	2	9	1,153	7	2	3
Old for re-manufacture .	172	..	..	..	341	..	..	..
Steel	327	7	1	9	241	..	2	25
	23,428	0	2	16	29,626	1	1	10

Note.—Since the foregoing statement was drawn up, the "*Résumé des Travaux Statistiques de l'Administration des Mines en* 1843," detailing the mining operations carried on in France in 1842, has been received. From this statement it appears, that the production of coal, lignite and anthracite, amounted in that year to 3,592,084 tons, being an increase over the preceding year of 181,884 tons, or 5⅓ per cent. The excess of the quantity imported over that exported, which in 1841 was 1,569,692 tons, amounted in 1842 to 1,611,331 tons, leaving from this source an increase for internal use of 41,639 tons, and showing the total increase of consumption to have been 4½ per cent. over the year 1841. The production of pig iron in 1842 exceeded that of 1841 by 22,314 tons, or not quite 6 per cent. Of bar iron the increase was 21,076 tons, or 8 per cent., and the value was also increased by 256,731*l*.